

Appendix D. Fishery Impact Statement – Social Impact Assessment

The Magnuson-Stevens Fishery Conservation and Management Act (Magnuson-Stevens Act) requires a Fishery Impact Statement (FIS) be prepared for all amendments to Fishery Management Plans (FMPs). The FIS contains an assessment of the expected and potential biological, economic and social effects of the conservation and management measures on: 1) fishery participants and their communities; 2) participants in the fisheries conducted in adjacent areas under the authority of another Council; and 3) the safety of human life at sea.

Actions in Coral Amendment 8

This Amendment to the FMP for Coral, Coral Reefs, and Live/Hardbottom Habitat Communities consists of regulatory actions that focus on deepwater coral ecosystem conservation. Management actions proposed in Coral Amendment 8 include the expansion of several Coral Habitat Areas of Particular Concern (CHAPCs) to increase protections for deepwater coral based on new information of deepwater coral resources in the South Atlantic. An action in the amendment would allow for transit through the Oculina Bank HAPC to provide fishermen access to historical grounds off the eastern boundary of the expanded Oculina Bank HAPC.

Assessment of Biological Effects

The proposed management measures are summarized in Section 2.0 of the amendment Environmental Assessment. The Council has chosen **Sub-Alternative 2b** and **Alternative 3** as preferred alternatives under **Action 1**. Expansion of the northern and western boundary of the Oculina Bank HAPC is expected to have positive biological impacts on the deepwater coral (including *Oculina varicosa*) in these areas as well as the species that utilize these habitats, including rock shrimp. Biological benefits are also expected for snapper grouper species since fishing for snapper grouper species while at anchor or with bottom longline would be prohibited. Expansion of the Oculina Bank HAPC in these areas would protect an additional 343 square miles of deepwater coral habitat from bottom-tending fishing gear.

The Council has selected **Alternative 3** as a preferred under **Action 2**, which would allow for transit through the Oculina Bank HAPC with possession of rock shrimp on board a vessel. Establishing a transit provision through the Oculina Bank HAPC may have negative biological impacts for rock shrimp stocks that are on the eastern side of the HAPC as fishing vessels would be able to access them more easily than they have in the past. Without a transit provision, the trip to those fishing grounds would be long and cost prohibitive to fishermen, providing an indirect protection to those shrimp stocks.

Alternative 4 is the Council's preferred under **Action 3**. Gear restrictions currently prohibited within the Stetson-Miami Terrace CHAPC would be extended to incorporate the expansion area identified under **Alternative 4**, which is approximately 490 square miles. The larger the expansion of the Stetson-Miami Terrace CHAPC, the greater the biological benefits to species that occur in this area. The extension of Shrimp Fishery Access Area 1 as identified in the preferred alternative may encourage fishermen to fish in the area giving a slight negative impact on the royal red shrimp populations. However, shrimp fisheries would be limited to this

historical fishing area and allowed to operate in an area that does not contain deepwater coral habitat.

The Council has selected **Alternative 2** under **Action 4** as preferred, which adds 10 square miles to the existing Cape Lookout CHAPC. The expansion of the CHAPC would benefit deepwater coral ecosystems and has been proposed based on new information of occurrence of deepwater *Lophelia pertusa* corals in the region.

Assessment of Economic Effects

Under **Action 1**, various commercial fisheries could experience long-term direct negative effects from potential loss of habitat. The tradeoff for protecting additional habitat under the various alternatives is that the expansion of the Oculina Bank HAPC may result in short-term direct negative economic effects on the rock shrimp and snapper grouper fisheries. For the rock shrimp fishery, **Preferred Sub-Alternative 2b** would be expected to result in a short-term reduction in ex-vessel revenue of \$159,149, and **Preferred Alternative 3** would be an expected reduction in revenue of \$189,463. Over time, the habitat protected under the preferred alternatives would be expected to yield higher biomass of rock shrimp and other species. Any inconvenience recreational fishermen may experience from a northern and western proposed expansion of the Oculina Bank HAPC could likely be mitigated by fishing in other areas.

The Council has selected **Alternative 3** as preferred under **Action 2**. **Alternative 2** and **Preferred Alternative 3** would allow fishermen to transit through the Oculina Bank HAPC with possession of rock shrimp on board their vessel, thereby reducing costs they would incur under **Alternative 1**. **Alternative 2** and **Preferred Alternative 3** provide moderate positive, direct economic benefits to fishermen because they would be able to use less fuel and take less time to get to their fishing grounds. Of the 79 vessels that currently have a VMS unit in the rock shrimp fleet, 22 of those vessels have older units that would need to be upgraded under **Preferred Alternative 3**. Those vessels would have to pay for the installation, maintenance, and increased communications charges associated with having an upgraded VMS. The total cost of hardware and software upgrades required to allow transit under **Preferred Alternative 3** for all vessels in the fleet is estimated to be \$72,890.

Alternative 4 is the Council's preferred under **Action 3**. Under some of the action alternatives, the proposed western extensions of the Stetson-Miami Terrace CHAPC would be expected to result in a minor loss of ex-vessel revenue to the royal red shrimp fleet. **Alternative 2** is expected to result in average annual losses of \$1,752. **Alternative 3** would result in expected average annual losses of \$557. Like **Alternative 1**, **Preferred Alternative 4** would not be expected to have any direct short-term economic effects.

Under **Action 4**, **Alternative 1** would likely have minimal short-term economic effects because the alternative would maintain access to all current harvest levels. The proposed northern extension of the Cape Lookout CHAPC (**Preferred Alternative 2**) is a relatively small area, and as such, the expansion would be expected to have minimal direct negative economic effects particularly on the snapper grouper or other fleets.

Assessment of the Social Effects

For the proposed expansion of closed areas under **Action 1**, the primary communities with the highest regional landings of deepwater shrimp are all in Florida and include Titusville, Mayport, Jacksonville, Cocoa Beach and Atlantic Beach, Florida (**Section 3.4.3**). Impacts on fishermen and individual businesses due to expansion of closed areas would be expected to occur primarily in these five areas, and community-level impacts would be expected in Titusville, Mayport, and Atlantic Beach, Florida primarily because these communities are more engaged and reliant on commercial fishing, including participation in the royal red and rock shrimp fisheries. **Sub-Alternative 2a, Preferred Sub-Alternative 2b, and Preferred Alternative 3** would impact the rock shrimp fleet, royal red shrimp fleet and possibly other commercial fisheries by closing some historic, present and potential future fishing grounds.

Negative impacts on the fishing vessels and crew may be reduced with a transit provision, as specified under **Action 2**. **Alternative 2** and **Preferred Alternative 3** would be beneficial to shrimp vessels by reducing the risk of negative impacts due to increased travel time and costs when traveling around a closed area to access outer fishing grounds.

The proposed extension of the Stetson-Miami Terrace CHAPC (**Action 3**) without a specified fishing area for the deepwater shrimp fleet (**Alternatives 2 and 3**) could have negative social effects on the royal red and rock shrimp fleet in the future if potential fishing grounds are no longer available. Because **Preferred Alternative 4** would also establish the Shrimp Fishery Access Area based on information of fishing grounds of the royal red shrimp vessels, negative impacts on the deepwater shrimp fleets and associated businesses and communities could be reduced or removed.

Alternative 1 under **Action 4** would likely have minimal negative social effects because no current or potential fishing grounds would be closed. Because the expansion area as identified under **Preferred Alternative 2** is so small and there are other areas nearby where similar fishing activity will be allowed, the direct negative social effects are expected to be minimal.

Assessment of the Administrative Effects

Administrative impacts under each action would be incurred through the rule making process, outreach, and enforcement. It is expected the larger the expansion of the HAPC and CHAPCs as identified under **Actions 1, 3 and 4**, the more enforcement would be needed. Most of the administrative impacts associated with these action alternatives would relate to at-sea enforcement. Under **Action 2**, if modifications are made to the transit regulations, administrative impacts on the agency would increase. Under **Preferred Alternative 3 (Action 2)**, depending upon vessels' frequency of transit, this might lead to an increase in impacts associated with monitoring by law enforcement.